

# Work Order ID 86293

June-26-12 3:38:07 PM

\*86293\*

Page 1

Item ID: D2249-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Fitting Assembly

Stop \*NS2\*

Start Date: 26/06/2012 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 10/07/2012 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/2012 Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2249	Rev E								
100		0.00							
*100*	Large Fab								
Large Fab	Memo	0.00							
Large Fab	Weld as per Dwg D2249 and QSI 004								
110		0.00							
*110*	QC9- Inspect visual per QSI004- Fusion Welds								
QC	Memo	0.00							
Quality Control									
120		0.00							
*120*	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									

(4) 12-8-15

DAS 18 12-08-16

SmB 12-8-17

DAS 16 12/08/17

12

NOTE: Date  
H:\FORMS\Quality Assurance\approved QA\

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

Date & initial all entries

# Work Order ID 86293

June-26-12 3:38:07 PM

**\*86293\***

Page 2

Item ID: D2249-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Fitting Assembly

Start Date: 26/06/2012 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 10/07/2012 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: QC: Date: SPC (Y/N): Date:

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel	0.00							
<b>*130*</b>									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 10:30								
	FINISH TIME: 11:00								
140	QC3- Inspect Part Finish	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									
150	Identify as per dwg & Stock Location: 469	0.00							
<b>*150*</b>									
Packaging	Memo	0.00							
Packaging									

M 121841

4x6 12/08/20

4x6 12/08/20

4x6 12/08/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 86293

**\*86293\***

Page 3

June-26-12 3:38:07 PM

Item ID: D2249-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Fitting Assembly

Stop **\*NS2\***

Start Date: 26/06/2012 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 10/07/2012 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC21- Final Inspection - Work Order Release

0.00

**\*160\***

QC

Memo

0.00

Quality Control

MLJ 12/08/21

MLJ 12/08/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

June-26-12 3:38:11 PM

Page 1

Work Order ID: 86293

\*86293\*

Parent Item: D2249-041

\*D2249-041\*

Parent Item Name: Fitting Assembly

Start Date: 26/06/2012

Required Date: 10/07/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP: D 05.02.04 Added Step 9KJ/RF  
IPP Rev:E 08-07-28 chg qty of D2249-1 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2249-1		Manufactured	No			100	Each	0.0000	2	8			
*D2249-1*					B 52300 x 8				**			EL 12-8-14	
Lug													
D2249-3		Manufactured	No			100	Each	20.0000	1	4			
*D2249-3*									**			EL 12-8-14	
Base Plate													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA005		20							
				34671		2							
				40893		18							
D2249-5		Manufactured	No			100	Each	13.0000	2	8			
*D2249-5*									**			EL 12-8-14	
Gusset													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA020		13							
				46322		1							
				50237		12							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



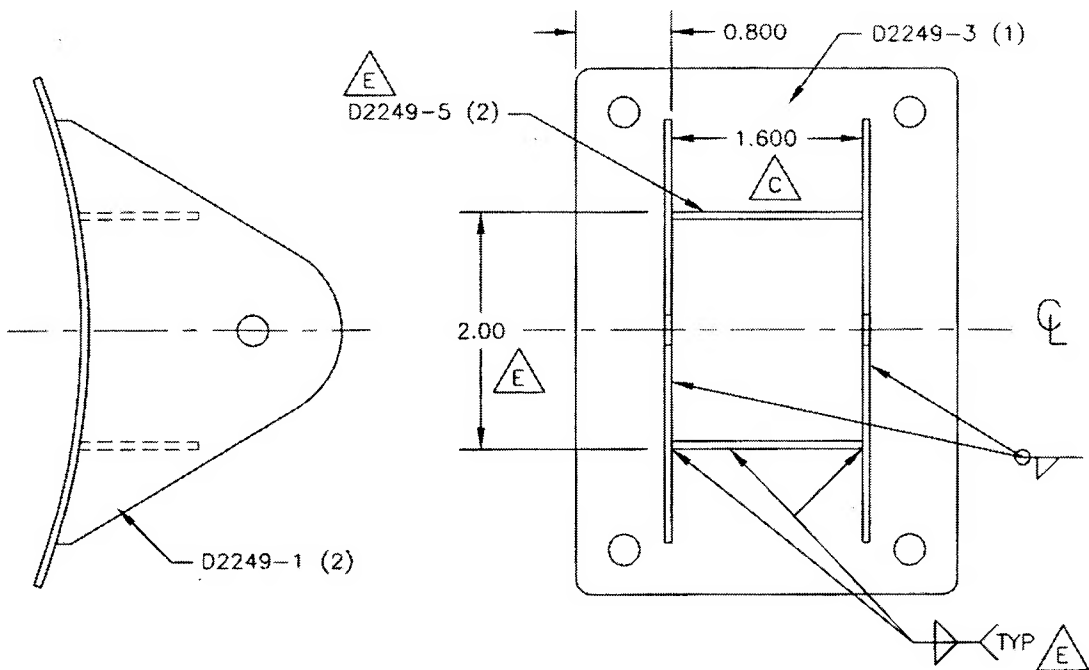
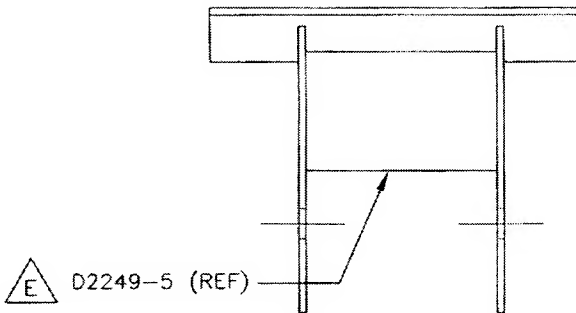
**DART**



RELEASED  
99.10.22 KE

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 86293 MLJ  
12/06/26

DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. E
KE	KE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	SHEET 1 OF 4
KE	KE	D2249	
DATE	TITLE	SCALE	
99.09.20	FITTING	NTS	
A	94.06.20	NEW ISSUE	
B	95.11.30	DIMENSION CHANGE	
C	95.12.14	DIMENSION CHANGE	
D	98.04.30	Ø0.261 WAS Ø0.257 (TSR A179) REMOVED DUPLICATE DIMENSIONS	
E	99.09.20	ADDED GUSSET	



D2249-041 ASSEMBLY

MATERIAL: AISI 304/316 SS, 0.063 THICK  
WELD PER DART QSI 004  
FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3  
ALL DIMENSIONS ARE IN INCHES  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE SPECIFIED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

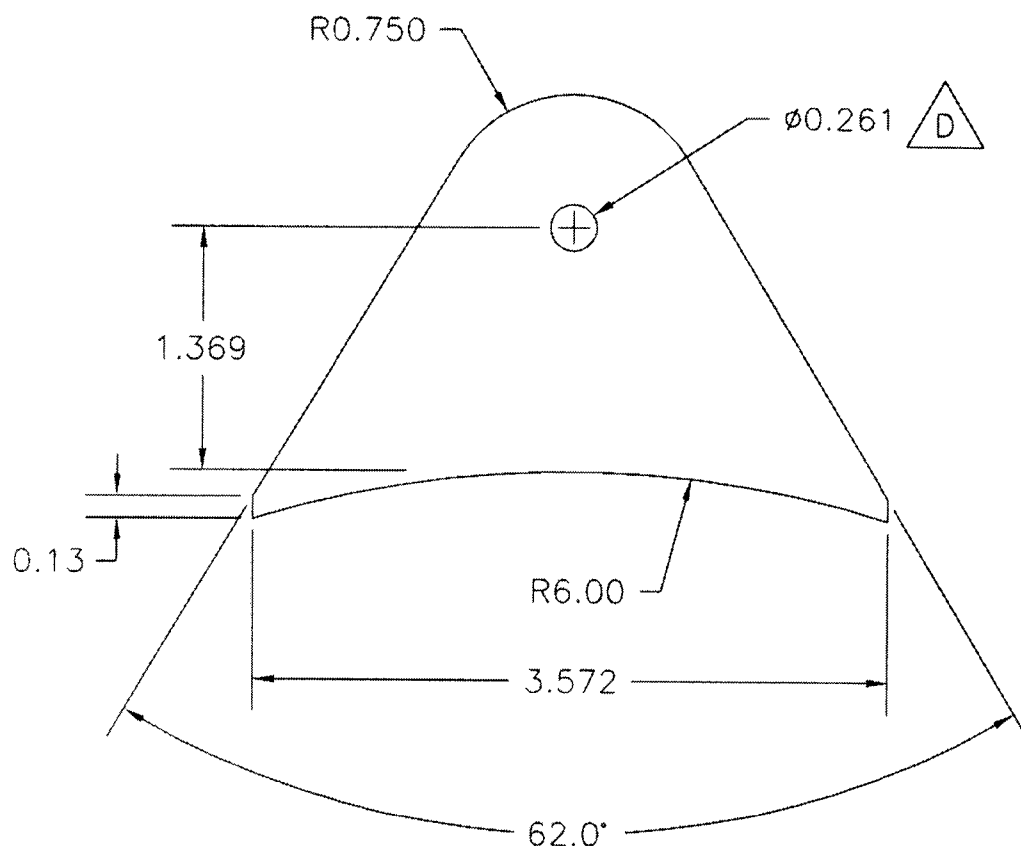
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>KE</i>	DRAWN BY <i>RF</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2249	REV. E SHEET 2 OF 4
DATE 99.09.20		TITLE FITTING	SCALE 1:1

RELEASED  
*11-12-00*



D2249-1 LUG

MATERIAL: AISI 304/316 SS 0.063 THICK  
ALL DIMENSIONS ARE IN INCHES  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

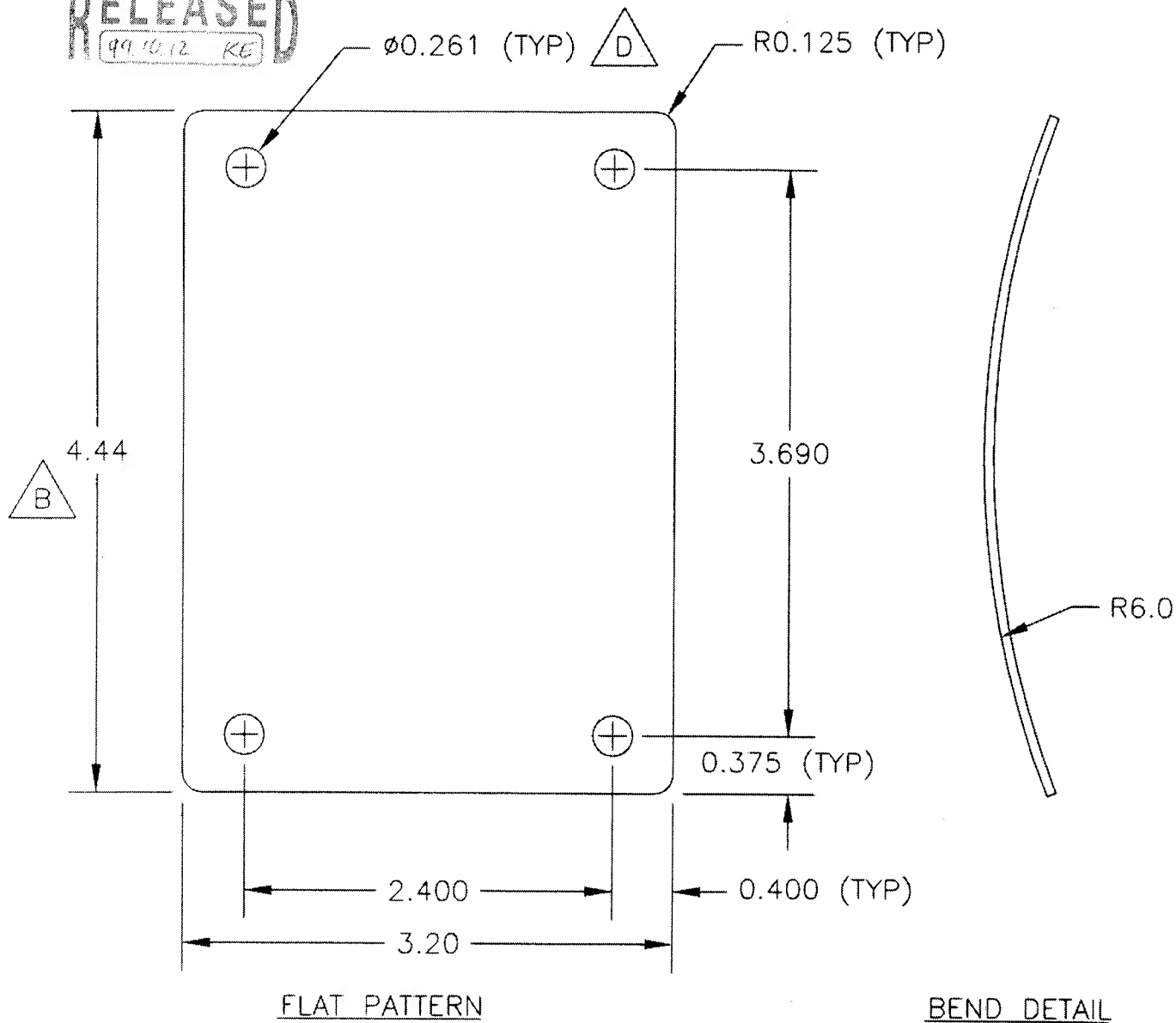
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>KE</i>	DRAWN BY <i>RF</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2249	REV. E SHEET 3 OF 4
DATE 99.09.20		TITLE FITTING	SCALE 1:1

RELEASED  
99.10.12 KE



D2249-3 BASE PLATE

MATERIAL: AISI 304/316 SS 0.063 THICK  
ALL DIMENSIONS ARE IN INCHES  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

26293

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

**Part No:** \_\_\_\_\_ **PAR #:** \_\_\_\_\_ **Fault Category:** \_\_\_\_\_ **NCR:** Yes No **DQA:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Resolution:** \_\_\_\_\_ **Disposition:** \_\_\_\_\_ **QA: N/C Closed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

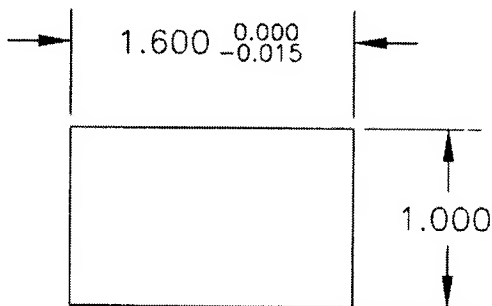
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>KE</i>	DRAWN BY <i>RF</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>TH</i>	DRAWING NO. D2249	REV. E SHEET 4 OF 4
DATE 99.09.20		TITLE FITTING	SCALE 1:1

RELEASED  
19.10.12 KE



D2249-5 GUSSET

MATERIAL: AISI 304/316 SS 0.063 THICK  
ALL DIMENSIONS ARE IN INCHES  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

06253

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries